IN THE U.S. PATENT AND TRADEMARK OFFICE

Appellants:	Arnab Das et al.
Application No.:	10/077,613
Art Unit:	2617
Filed:	February 15, 2002
Examiner:	Phuoc Huu Doan
For:	EXPRESS SIGNALING IN A WIRELESS COMMUNICATION SYSTEM
Attorney Docket No.:	129250-002054/US

APPLICANTS'/APPELLANTS' BRIEF ON APPEAL

MAIL STOP APPEAL BRIEF - PATENTS
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March 19, 2007

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APPELLANT'S BRIEF ON APPEAL

I. REAL PARTY IN INTEREST:

The real party in interest in this appeal is Lucent Technologies Inc. Assignment of the application was submitted to the U.S. Patent and Trademark Office and recorded at Reel 012618, Frame 0379.

II. RELATED APPEALS AND INTERFERENCES:

There are no known appeals or interferences that will affect, be directly affected by, or have a bearing on the Board's decision in this Appeal.

III. STATUS OF CLAIMS:

Claims 1-14 and 16-20 are pending in the application, with claims 1 and 20 being written in independent form.

Claims 1-10, 12-14 and 16-20 remain finally rejected under 35 U.S.C. §102(e) and claim 11 remains finally rejected under 35 U.S.C. §103. Claims 1-14 and 16-20 are being appealed.

IV. STATUS OF AMENDMENTS:

A Request for Reconsideration ("Request") was filed on October 30, 2006. In an Advisory Action dated November 27, 2006, the Examiner stated that the Request was considered but did not place the application in condition for allowance.

V. SUMMARY OF CLAIMED SUBJECT MATTER:

(i). Overview of the Subject Matter of the Independent Claims

The present invention is directed at the transmission of control and signaling information between a base station and mobile device in a wireless network without the need to first send such information to a base station controller. The claimed transmissions make use of the media access control (MAC) layer to modify and transmit such information. Independent claim 1 reads as follows (specification citations follow in parenthesis):

1.) A method for transmitting a plurality of control and signaling information between a base station and one or more mobile stations in a wireless communication network, the method comprising:

modifying one or more prescribed fields in an existing media access control (MAC) channel to carry a plurality of control and signaling information directly between the base station and at least one mobile station by performing a cyclic redundancy check (CRC) calculation over the contents of a control field and mobile station identifier, wherein the control and signaling information includes one or more identifiers, and wherein one or more of the identifiers includes a message type.

(see specification, page 1, lines 21-24; page 3, lines 25-27; page 3, line 28 to page 4, line 17; page 6, lines 33-35; page 7, lines 5-6; page 7, lines 19-29; and page 8, lines 22-28, for example).

Independent claim 20 reads as follows:

20.) A method for transmitting a plurality of control and signaling information between a base station and one or more mobile stations in a wireless communication network, the method comprising:

modifying one or more prescribed fields in an existing media access control (MAC) channel to carry one or more prescribed message identifiers between the base station and the one or more mobile stations by performing a cyclic redundancy check (CRC) calculation over the contents of a control field and mobile station identifier,

wherein the one or more prescribed message identifiers comprise control and signaling information selected from the group consisting of

routing information, message type, control information, and a signaling message,

whereby express signaling occurs directly between the base station and at least one mobile station.

(see specification, (see specification, page 1, lines 21-24; page 3, lines 25-27; page 3, line 28 to page 4, line 17; page 6, lines 33-35; page 7, lines 5-6; page 7, lines 19-29; and page 8, lines 22-28), for example).

In order to make the overview set forth above concise the disclosure that has been included, or referred to, above only represents a portion of the total disclosure set forth in the Specification that supports the independent claims.

(ii). The Remainder of the Specification Also Supports the Claims

The Appellants note that there may be additional disclosure in the Specification that also supports the independent and dependent claims. Further, by referring to the disclosure above the Appellants do not represent that this is the only evidence that supports the independent claims nor do Appellants necessarily represent that this disclosure can be used to fully interpret the claims of the present invention. Instead, this disclosure is an overview of the claimed subject matter.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL:

Appellants seek the Board's review and reversal of the rejection of claims 1-10, 12-14, and 16-20 under 35 USC §102(e) based on Bolourchi et al. (Pub. No. US 2002/0170013, hereinafter "Bolourchi") and claim 11 under 35 USC §103 based on Bolourchi in view of Willenegger (Pub. No. US 2002/0110181) ("Willenegger").

VII. ARGUMENTS:

A. THE § 102 Rejections

Claims 1-10, 12-14, and 16-20 were rejected under 35 USC §102(e) as allegedly being anticipated by Bolourchi et al. (Pub. No. US 2002/0170013, hereinafter "Bolourchi"). Appellants respectfully disagree.

As the Appellants have pointed out in their previous responses, each of the claims of the present invention include the feature of modifying one or more prescribed fields in an existing media access control (MAC) channel. In contrast, Bolourchi modifies its messages in the physical layer (see paragraphs [0058 and 0059]; "The physical layer generates the CRC and applies the UE ID for forwarding with the message...as a data burst. The message is then transmitted from the node B (base station) to the UE (mobile)"; words in parentheses added). Though it appears a "control message" is generated in the MAC layer of Bolourchi, this message is then sent to the physical layer where it is further modified before being sent back to the MAC layer.

In the Final Office Action the Examiner appears to be taking the position (the Examiner's comments are, it is respectfully submitted, hard to understand) that paragraphs [0058] and [0059] of Bolourchi disclose modifications within the MAC layer. This is inaccurate. Rather, as set forth above and in paragraph [0058], "the physical layer generates the CRC and applies the UE ID". Further, it is within the physical layer that "the UE ID and the CRC are checked to determine if they are correct" (see paragraph [0058]); the corrections do not occur in the MAC layer. In sum, the claimed MAC layer modifications do not appear to be disclosed or suggested by the disclosure in Bolourchi.

Because Bolourchi fails to disclose each and every feature of the claimed inventions, Bolourchi cannot provide a basis for a rejection under 35 USC

§102. Reconsideration, withdrawal of the rejections and allowance of claims 1-10, 12-14 and 16-20 is respectfully requested.

B. The § 103 REJECTIONS

Claim 11 stands rejected under 35 USC §103 as being unpatentable over Bolourchi in view of Willenegger (Pub. No. US 2002/0110181) ("Willenegger"). Appellants respectfully disagree and traverse this rejection.

Appellants respectfully submit that claim 11 is dependent on claim 1 and is therefore patentable over Bolourchi, taken separately or in combination with Willenegger, for at least the reasons discussed above because Willenegger does not make up for the deficiencies of Bolourchi.

Accordingly, Appellants respectfully submit that the subject matter of claim 11 would not have been obvious to one of ordinary skill in the art upon reading the disclosures of Bolourchi and Willenegger as of the date the present application was filed. Appellants respectfully request withdrawal of the pending rejection and allowance of claim 11.

Conclusion:

Appellants respectfully request that members of the Board reverse the decision of the Examiner and allow claims 1-14 and 16-20.

The Commissioner is authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 50-3777 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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VIII. CLAIMS APPENDIX

1. A method for transmitting a plurality of control and signaling information between a base station and one or more mobile stations in a wireless communication network, the method comprising:

modifying one or more prescribed fields in an existing media access control (MAC) channel to carry a plurality of control and signaling information directly between the base station and at least one mobile station by performing a cyclic redundancy check (CRC) calculation over the contents of a control field and mobile station identifier, wherein the control and signaling information includes one or more identifiers, and wherein one or more of the identifiers includes a message type.

2. The method according to claim 1, wherein the control and signaling information includes one or more identifiers, and wherein one or more of the identifiers includes routing information.

3. The method according to claim 2, wherein the routing information indicates the one or more mobile stations for which a transmission is intended.

4. The method according to claim 3, wherein the plurality of control and signaling information comprises and signaling information.

5. The method according to claim 3, wherein the transmission is simultaneously transmitted and intended for a plurality of mobile stations.

6. The method according to claim 2, wherein the message type indicates a type of action to be carried out by a recipient mobile station.

7. The method according to claim 1, wherein the control and signaling information includes message address information for a single mobile station.

8. The method according to claim 1, wherein the control and signaling information includes common message address information for a plurality of mobile stations.

9. The method according to claim 8, wherein the control and signaling information includes an identifier indicating a broadcast transmission to the plurality of mobile stations.

10. The method according to claim 8, wherein the control and signaling information includes an identifier indicating a multicast transmission for a prescribed number of the plurality of mobile stations.

11. The method according to claim 1, wherein the control and signaling information includes an identifier indicating available Walsh space for transmission of data between the base station and the one or more mobile stations.

12. The method according to claim 2, wherein a routing information identifier comprises an explicit set of bits transmitted in a frame of the existing control channel.

13. The method according to claim 1, wherein the existing control channel includes a message identification field and the control field.

14. The method according to claim 13, wherein the control field includes the control and signaling information.

15. (Cancelled)

16. The method according to claim 14, wherein the transmission includes the mobile station identifier, the CRC calculation, and the control field.

17. The method according to claim 15 wherein the transmission includes the CRC calculation and the control field, and wherein routing information is derived at a receiving mobile station by performing a CRC calculation on the received transmission together with the receiving mobile station's mobile station identifier.

18. The method according to claim 12, wherein routing information for a transmission is derived via an logical exclusive OR operation performed on

the explicit set of bits and a cyclic redundancy check (CRC) calculated on the contents of a control frame in the existing control channel.

19. The method according to claim 13, wherein the message identification field comprises at least two parts, wherein a first part identifies a recipient mobile station for the transmission and wherein a second part indicates a message type.

20. A method for transmitting a plurality of control and signaling information between a base station and one or more mobile stations in a wireless communication network, the method comprising:

modifying one or more prescribed fields in an existing media access control (MAC) channel to carry one or more prescribed message identifiers between the base station and the one or more mobile stations by performing a cyclic redundancy check (CRC) calculation over the contents of a control field and mobile station identifier,

wherein the one or more prescribed message identifiers comprise control and signaling information selected from the group consisting of routing information, message type, control information, and a signaling message,

whereby express signaling occurs directly between the base station and at least one mobile station.

IX. EVIDENCE APPENDIX

None.

X. RELATED PROCEEDINGS APPENDIX

None.